

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

1.94
R3157
Cop. 2



U. S. DEPT. OF AGRICULTURE
NATIONAL WATER RESEARCH INSTITUTE
FEB 1973

PROCUREMENT SECTION
CURRENT SUPPLY

WATER SUPPLY OUTLOOK FOR ARIZONA

Prepared by

U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

**SALT RIVER VALLEY WATER USERS ASSOCIATION
and
ARIZONA AGRICULTURAL EXPERIMENT STATION**

Data included in this report were obtained by the agencies named above in cooperation with the Federal, State and private organizations listed on the last page of this report.

AS OF
JAN. 15, 1973

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 511 N. W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 970, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR ARIZONA

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

KENNETH E. GRANT
ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.

|||||

Released by

GEORGE C. MARKS
STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
PHOENIX, ARIZONA

In Cooperation with

RICHARD K. FREVERT
DIRECTOR
ARIZONA AGRICULTURAL
EXPERIMENT STATION

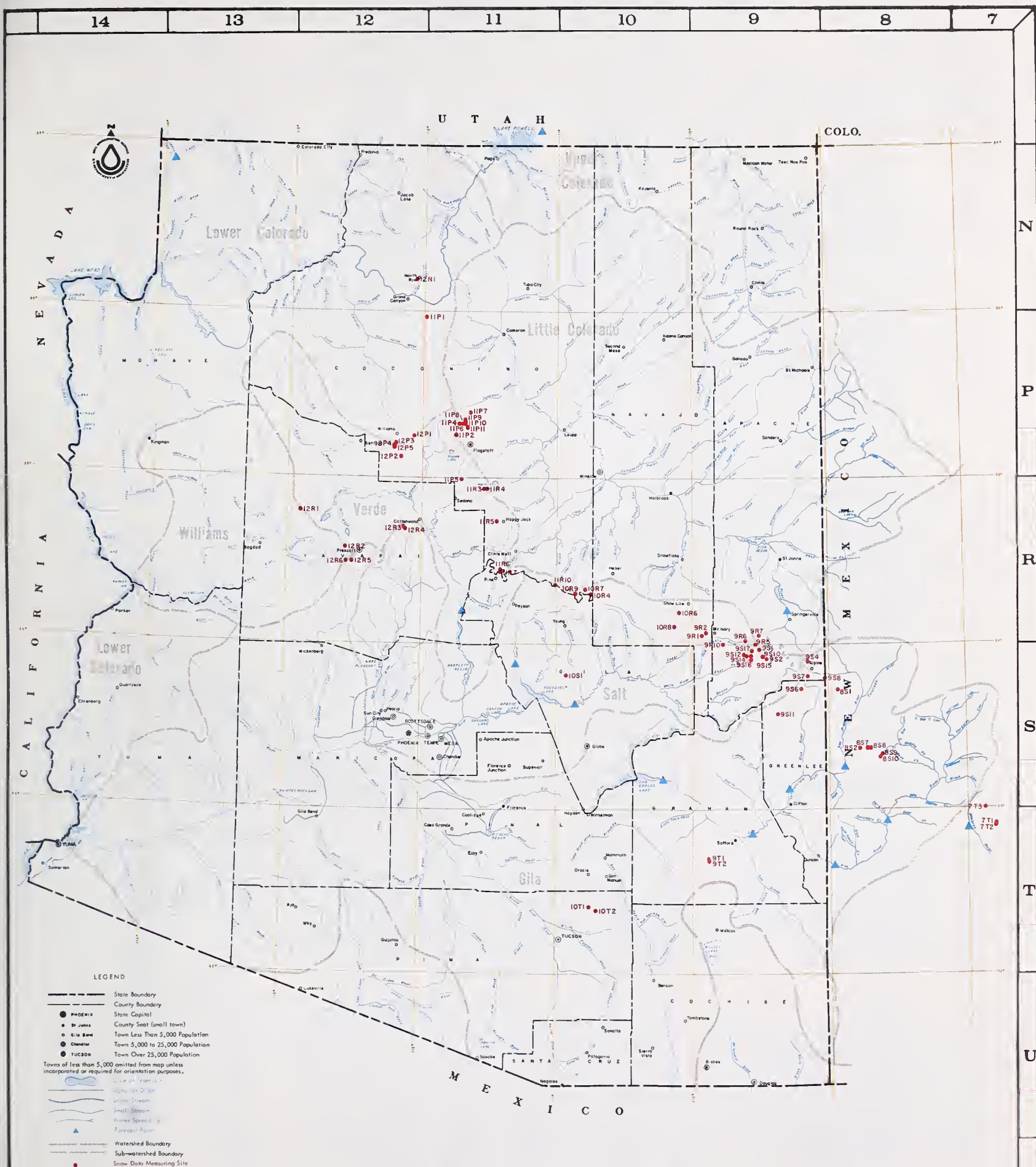
KARL F. ABEL
PRESIDENT
SALT RIVER VALLEY WATER
USERS ASSOCIATION

|||||

Report prepared by

RICHARD W. ENZ, Snow Survey Supervisor

SOIL CONSERVATION SERVICE
ROOM 6029 FEDERAL BUILDING
PHOENIX, ARIZONA 85025



SNOW COURSES AND RELATED DATA MEASURING SITES ARIZONA

1973

SCALE 1:3,800,000
ALBERS EQUAL AREA PROJECTION

INDEX to SNOW COURSES and SOIL MOISTURE STATIONS

NUMBER	NAME	SEC.	TWP.	RGE.	ELEV.	DRAINAGE	OBSERVER	RECORD BEGAN
11P10A	Agassiz	32	23N	7E	11200	Little Colorado	SCS	1968
11R7	Baker Butte #2	9	12N	9E	7700	Verde	SCS	1971
11R6PSP	Baker Butte	4	12N	9E	7300	Verde	SCS	1966
9S1APSP	Baldy	28	7N	27E	9125	Little Colorado	SCS	1950
9S15	Baldy #2	12	6N	26E	9750	Little Colorado	SCS	1963
9S16	Baldy #3	13	6N	26E	10950	Little Colorado	SCS	1963
10T1	Bear Wallow	6	12S	16E	8100	Gila	FS	1948
9S6	Beaver Head	13	4N	30E	8000	San Francisco	FS	1938
12P5	Bill Williams Intermediate	17	21N	2E	8550	Cataract	FS	1967
12P4	Bill Williams Summit	17	21N	2E	8950	Verde	FS	1967
9S10m	Black River Divide	10	6N	27E	9400	Salt	SCS	1954
12N1	Bright Angel	34	33N	3E	8400	Bright Angel Creek	NPS	1947
12R1	Camp Wood	3	16N	6W	5700	Verde	FS	1946
10R7M	Canyon Creek #2	18	11N	15E	7500	Little Colorado	SCS	1958
10R9P	Canyon Point	28	11N	14E	7600	Salt	SCS	1967
12P1M	Chalender	27	22N	3E	7100	Verde	FS	1947
9R7	Cheese Springs	28	8N	27E	8600	Little Colorado	SCS	1969
12R6P	Copper Basin Divide	23	13N	3W	6720	Verde	SCS	1963
10R8m	Corduroy Creek	4	8N	21E	6000	Salt	SCS	1954
9S7	Coronado Trail	26	5N	30E	8000	San Francisco	FS	1938
9T2A	Crazy Horse	34	8S	24E	10200	Gila	FS	1963
11P11a	Doyle Saddle	4	22N	7E	10900	Little Colorado	SCS	1968
7T1	Emory Pass #1	16	16S	9W**	7800	Mimbres	SCS	1967
7T2	Emory Pass #2	16	16S	9W**	7800	Mimbres	SCS	1967
10R6	Forest Dale	2	9N	21E	6430	Salt	BIA	1939
9R5	Ft. Apache	18	7N	27E	9160	Little Colorado	SCS	1951
11P2P	Ft. Valley	22	22N	6E	7350	Little Colorado	FS	1947
8S1MP	Frisco Divide	31	6S	20W**	8000	San Francisco	FS	1938
12R4	Gaddes Canyon	11	15N	2E	7600	Verde	SCS	1954
11P1	Grand Canyon	21	30N	4E	7500	Hance Creek	NPS	1947
9S11P	Hannagan Meadows	19	3N	29E	9090	San Francisco	FS	1964
11R5P	Happy Jack	30	16N	9E	7630	Verde	FS	1951
9R10	Hawley Lake	13	7N	24E	8300	Salt	BIA	1966
10R4PSP	Heber	28	11N	15E	7600	Little Colorado	SCS	1950
9T1A	High Peak	34	8S	24E	10500	Gila	FS	1963
8S9A	Hummingbird	19	11S	17W**	10550	Gila	SCS	1964
11P9P	Inner Basin #1	28	23N	7E	10000	Little Colorado	SCS-USBR	1967
11P8P	Inner Basin #2	28	23N	7E	9750	Little Colorado	SCS-USBR	1967
11P7	Inner Basin #3	3	23N	7E	10250	Little Colorado	SCS-USBR	1967
12R2	Iron Springs	22	14N	3W	6200	Bill Williams	SCS	1946
9S2APSP	Maverick Fork	13	6N	27E	9150	Salt	SCS	1950
7S3A	McKnight Cabin	10	15S	10W**	9300	Mimbres	SCS	1967
9R2M	McNary	23	8N	23E	7200	Salt	BIA	1939
9R1	Milk Ranch	33	8N	23E	7000	Salt	BIA	1941
12R3	Mingus Mountain	3	15N	2E	7100	Verde	SCS	1947
8S2	Mogollon	2	11S	19W**	7000	San Francisco	SCS	1953
11R4	Mormon Lake	13	18N	8E	7350	Little Colorado	SCS	1947
11R3MAPSP	Mormon Mountain	14	18N	8E	7500	Verde	SCS	1950
9S12A	Mt. Ord	4	6N	26E	11200	Salt	SRP-SCS	1966
11P5M	Newman Park	25	19N	6E	6750	Verde	SCS	1963
9S4	Nutrioso	23	6N	30E	8500	San Francisco	FS	1938
11R10	Promontory Butte	5	11N	13E	7930	Little Colorado	SCS	1973
8S7	Redstone Trail	5	11S	18W**	8600	San Francisco	SCS	1961
10T2	Rose Canyon	15	12S	16E	7300	Gila	FS	1948
8S8P	Silver Creek Divide	4	11S	18W**	9000	San Francisco	SCS	1964
9S14A	Smith Cienega	10	6N	26E	10050	Salt	SRP-SCS	1966
11P4	Snow Bowl #1	36	23N	6E	10260	Verde	FS	1961
11P6	Snow Bowl #2	31	23N	7E	11000	Verde	FS	1965
9S8	State Line	6	6S	21W**	8000	San Francisco	FS	1938
9S17	Sunrise Summit	36	7N	26E	10600	Salt	FAIR-SCS	1972
12P2P	White Horse Lake Jct.	2	20N	2E	7180	Verde	FS	1967
12R5	White Spar	19	13N	2W	6000	Verde	SCS	1963
8S10A	Whitewater	19	11S	17W**	10750	Gila	SCS	1964
12P3	Williams Ski Run	9	21N	2E	7720	Cataract	FS	1967
9R6P	Wilson Lake	4	7N	26E	9000	Salt	SCS	1966
10S1P	Workman Creek	33	6N	14E	6900	Salt	FS	1952

A Aerial Snow Depth Marker

a Aerial Snow Depth Marker Only

M Soil Moisture Station

m Soil Moisture Station Only

P Precipitation Storage Gage

SP Snow Pressure Pillow

** NM Principal Meridian

ARIZONA WATER SUPPLY OUTLOOK

JANUARY 15, 1973

The 1973 water supply outlook is very good. Central Arizona reservoirs contain much above average supplies of water, and stream-flow is expected to be above average on all streams this spring.

SNOW COVER

The present snow pack is above average on all watersheds, ranging from slightly above average on the Gila to almost three times average on the Verde. The Salt and Little Colorado Watersheds are 52% and 41% above average respectively. Heaviest snow accumulation is along the "Rim" between Williams and Heber. Over 5 feet of snow was recorded on the San Francisco Peaks; this is the deepest snow ever measured there so early in the season. A recent storm since the mid-month measurement has increased this still more.

PRECIPITATION

October precipitation was extremely high with many stations exceeding their all-time record amounts for any month. Over 15 inches was recorded at several stations along the "Rim." These heavy rains produced high runoff from all watersheds, increasing reservoir storage substantially and filling soil profiles to capacity. November and December precipitation has continued above normal, resulting in the present heavy snow cover. The several light storms in January have not contributed large amounts of water to the snow pack, but have kept it from decreasing.

SOIL MOISTURE

The October storms saturated soils on all watersheds. Soils are still very wet, ranging between field capacity and saturation. Heavy runoff will result from melting snows and moderate subsequent precipitation.

RESERVOIR STORAGE

All major reservoirs contain above average amounts of water for this date. The Salt River Project reservoirs presently contain 71% of capacity which is 47% above average. Storage in San Carlos Reservoir is four and one-half times average at 42% of capacity.

STREAMFLOW AND WATER SUPPLY

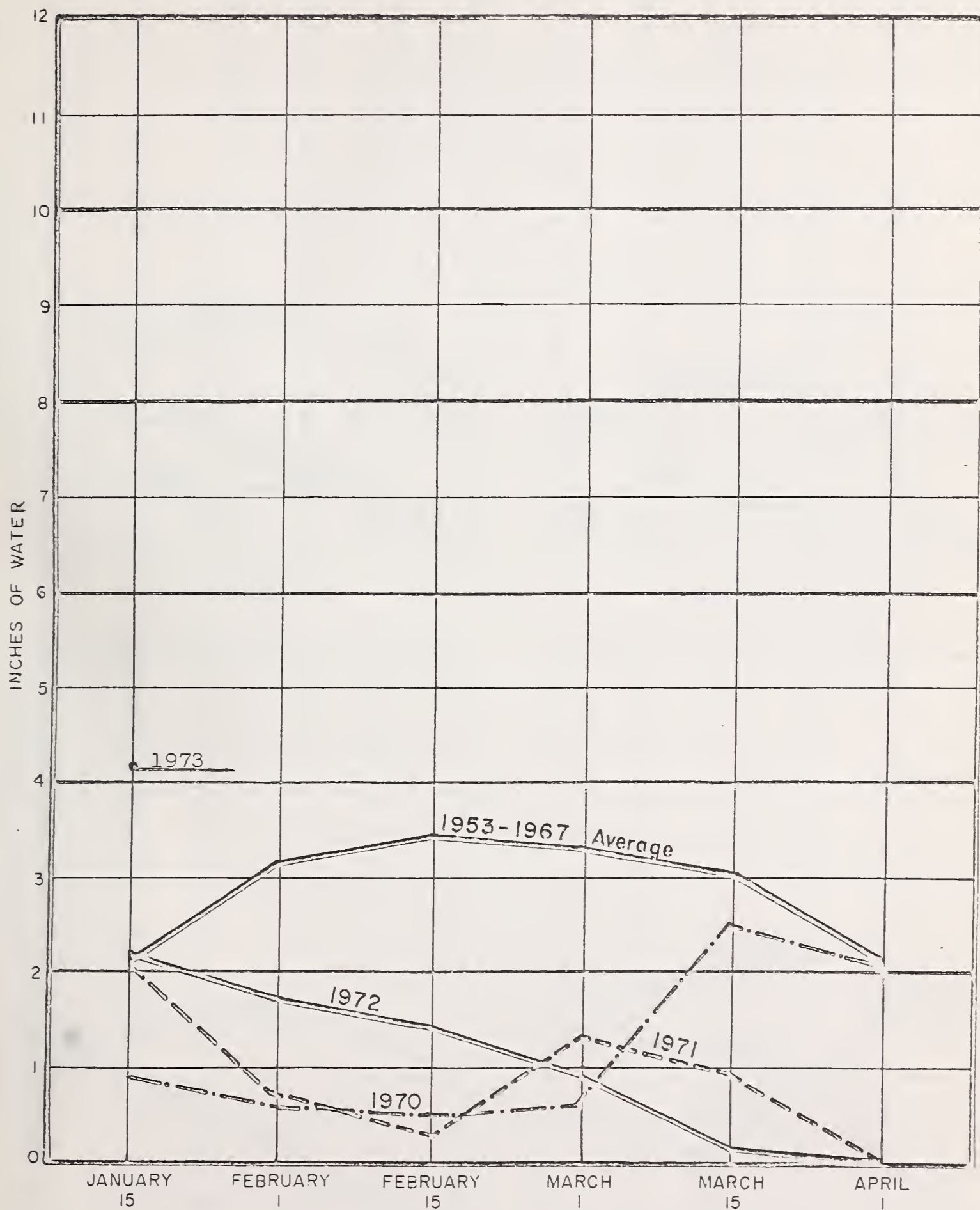
Rivers continue to flow much above average due to the fall and winter storms. The Salt and Verde system is expected to produce over 500,000 acre-feet during the January through May period if spring precipitation is near normal. The San Carlos Project has also benefited greatly from the fall and winter runoff. Although above average runoff is expected through May, the extent will depend to a large degree upon subsequent storm activity.

Above average water supplies are assured for the 1973 season in all of Arizona with good carry-over storage likely in the larger reservoirs.

RESERVOIR STORAGE (Thousand Acre Feet) MID-MONTH READING ABOUT JANUARY 15, 1973

Basin or Stream	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average†
<u>GILA RIVER DRAINAGE</u>					
Agua Fria	Lake Pleasant	157.6	69.8	55.6	40.1
Granite	Watson Lake	4.7	4.4	3.0	---
Granite	Willow Creek	6.1	5.8	1.7	---
Gila	San Carlos	948.6	400.7	133.8	89.4
Salt	Roosevelt, Apache, Canyon & Saguaro	1755.0	1176.5	919.2	909.0
Verde	Bartlett & Horseshoe	317.7	302.3	123.8	93.4
Salt & Verde	6 Salt River Project Reser- voirs	2072.7	1478.8	1043.0	1002.4
<u>COLORADO RIVER DRAINAGE</u>					
Colorado	Lake Havasu	619.4	544.3	545.2	534.8
Colorado	Lake Mohave	1810.0	1524.8	1574.8	1652.3
Colorado	Lake Mead	26159.0	18945.0	17805.0	16754.3
Colorado	Lake Powell	25002.0	12519.0	13001.0	-----*
Little Colorado	Lyman	30.6	7.5	7.5	8.7
Little Colorado	Show Low Lake	5.1	2.0	4.6	1.3*.
† Based on 15-year period, 1953-67					
* Average is for less than 15 years of record					
- 2 -					

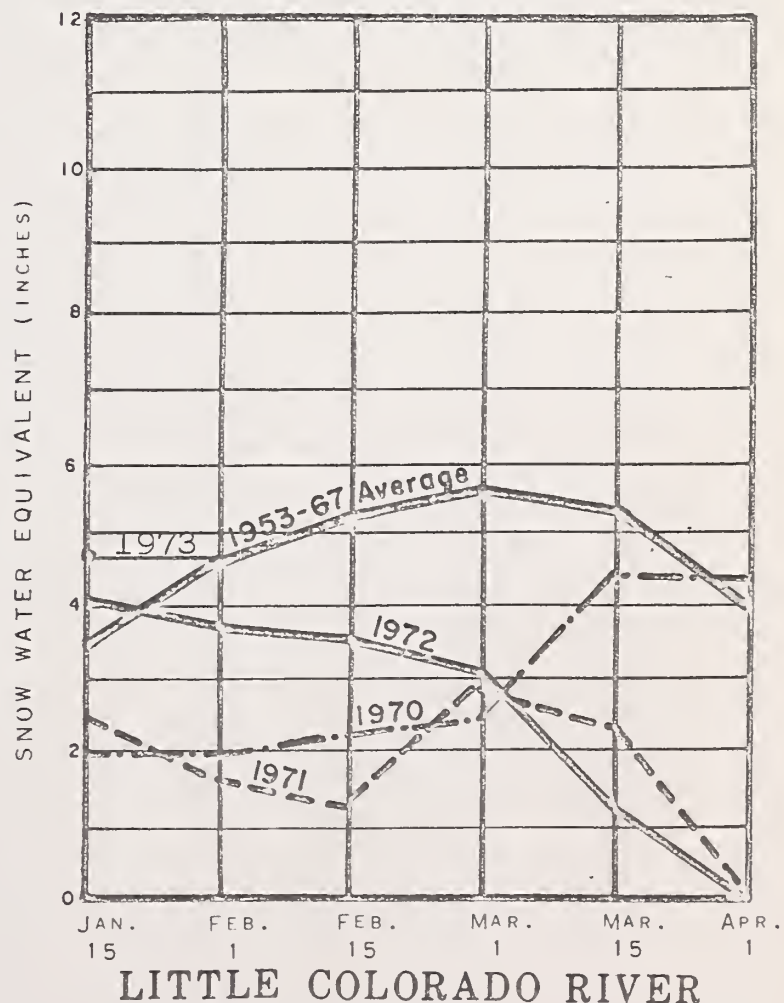
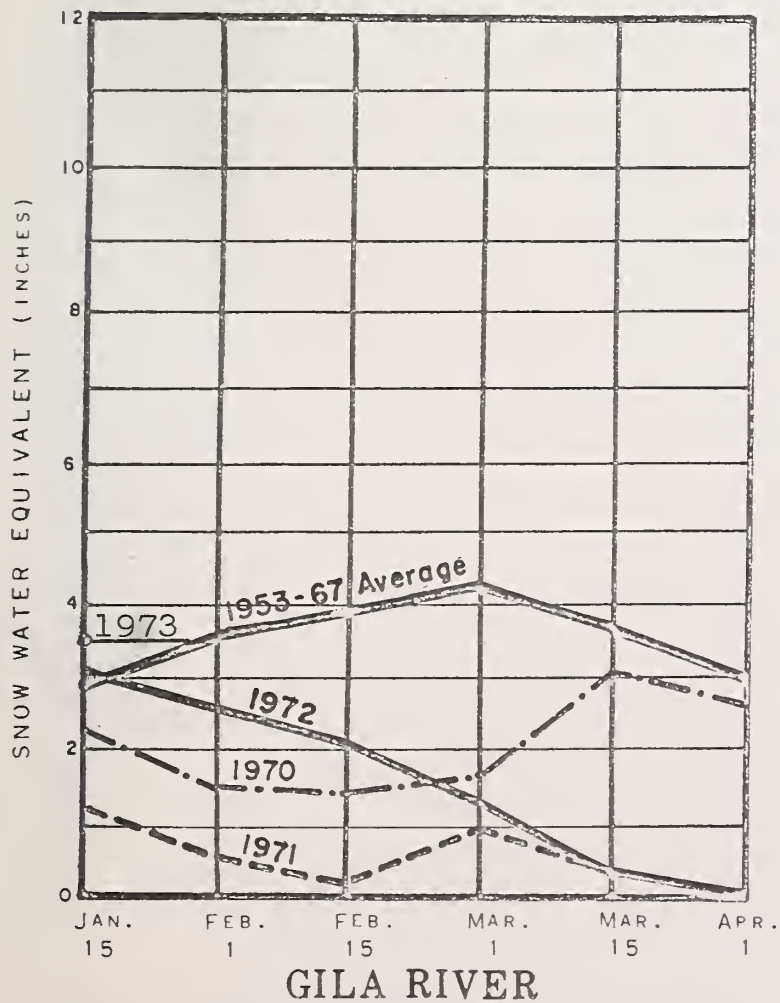
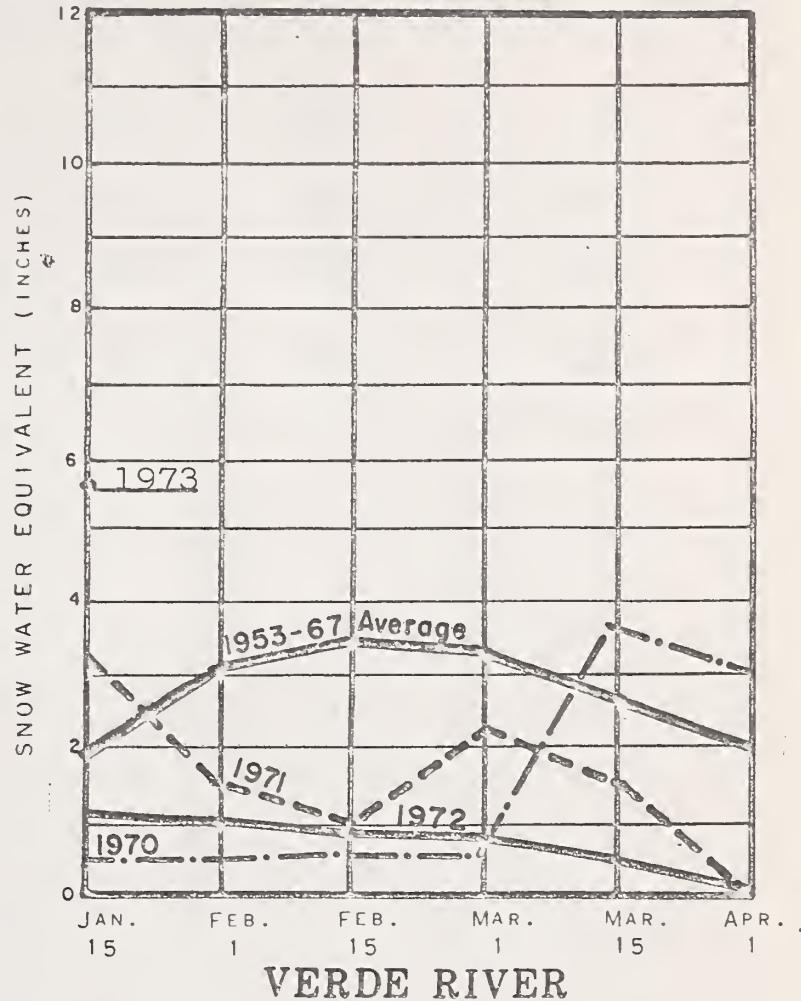
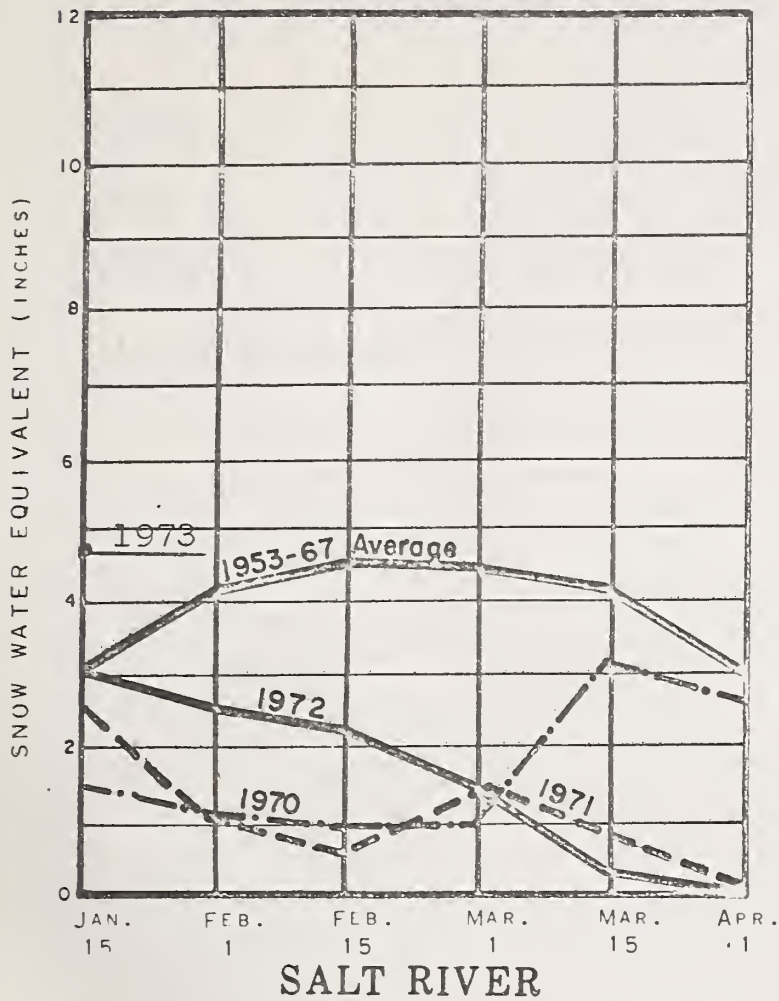
RELATIVE SNOW WATER ACCUMULATION ARIZONA 1973



This graph represents the average snow water content on eleven selected snow courses on Arizona Sub-Watersheds.



1973 ARIZONA SNOW COVER BY WATERSHEDS



(COMPARISON WITH PREVIOUS YEARS)

ABOUT JANUARY 15, 1973

[illegible]

SNOW EARLY WINTER SURVEYS, 1972-73

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average †
Agassiz	11200	11/30	39	7.5	7.5	NO RECORD FOR THIS PERIOD
Baker Butte	7300	11/14	9	1.8	0	
"	7300	11/28	6	2.3	0.2	
"	7300	12/14	22	5.9	3.1	
"	7300	12/28	18	5.6	2.6	
Baker Butte #2	7700	11/28	15	4.1	---	↓
Baldy	9125	11/29	9	2.0	1.6	
"	9125	12/29	25	5.4	5.2	
Canyon Point	7600	11/28	7	2.0	---	
"	7600	12/30	17	5.3	0.8	
Canyon Creek	7500	12/30	15	4.8	---	
Chalender	7100	12/27	11	3.1	0.5	
Copper Basin Divide	6720	1/2/73	6	1.8	0	
Coronado Trail	8000	12/29	7	1.3	---	
Doyle Saddle	10900	11/30	30	7.5	7.5	
Hannagan Meadows	9090	12/29	30	7.0	---	
Happy Jack	7630	11/14	11	2.1	0	
"	7630	12/28	17	5.5	T	
Heber	7600	12/30	17	5.1	0.5	
Inner Basin #1	10100	10/30	18	3.4	4.7	
"	10100	11/30	25	7.5	6.7	
Inner Basin #2	9750	10/30	11	2.0	3.6	
"	9750	11/30	18	4.9	5.0	
Maverick Fork	9050	11/29	6	1.5	1.2	
"	9050	12/29	26	6.3	5.7	
McNary	7200	12/30	12	3.2	0.8	
Mingus Mountain	7100	1/2/73	3	0.5	0	
Mormon Mountain	7500	11/14	11	2.2	0	
"	7500	11/28	9	3.0	0.2	
"	7500	12/15	22	6.5	3.7	
"	7500	12/28	19	6.1	1.0	
Mt. Ord	11000	11/15	27	5.4	---	
"	11000	12/19	4.2	8.4	---	
Newman Park	6750	12/27	4	1.8	0	
Nutriosio	8500	12/29	6	0.9	---	
Promontory Butte	7930	12/14	31	8.8	---	
Smith-Cienega	9850	11/15	24	5.4	---	
"	9850	12/19	32	7.4	---	
Sunrise Summit	10600	11/29	20	5.0	---	
White Horse Lake Junction	7150	12/27	9	3.4	0.3	
Workman Creek	6900	12/12	12	4.5	---	

SNOW

ABOUT JANUARY 15, 1973

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
					Last Year	Average †
<u>GILA RIVER</u>						
Bear Wallow	8100	1/15	2	0.3	1.1	3.1
Beaver Head	8000	1/15	10	2.0	2.5	2.2
Coronado Trail	8000	1/15	8	1.7	2.5	2.1
Crazy Horse (A)	10200	---	---	---	---	---
Emory Pass #1 *	7800	1/12	6	1.4	0.7	---
Emory Pass #2 *	7800	1/12	6	2.2	1.9	---
Frisco Divide	8000	1/15	7	2.7	2.1	1.8
Hannagan Meadows *	9090	1/15	33	8.2	7.3	5.6**
High Peak (A)	10500	---	---	---	---	---
Hummingbird (A)	10550	1/18	39	11.7	12.6	7.6**
McKnight Cabin * (A)	9300	1/18	9	2.7	4.1	---
Mogollon	7000	1/14	0	0.0	0.0	1.2
Nutriosos	8500	1/15	7	1.8	1.7	1.5
Redstone Trail	8600	1/14	18	4.8	4.8	5.1**
Rose Canyon	7300	1/15	2	0.3	0.0	2.0
Silver Creek Divide	9000	1/14	30	8.5	7.1	6.3**
State Line	8000	1/15	9	2.9	2.2	1.9
Whitewater (A)	10750	1/18	54	13.5	19.4	8.5**
<u>SALT RIVER</u>						
Baldy *	9125	1/15	25	5.7	4.9	4.2
Beaver Head	8000	1/15	10	2.0	2.5	2.2
Canyon Creek	7500	1/12	18	5.0	1.0	1.7**
Canyon Point	7600	1/12	21	5.8	0.3	1.9**
Coronado Trail	8000	1/15	8	1.7	2.5	2.1
Forest Dale	6430	1/15	8	2.2	0.0	0.7
Ft. Apache	9160	1/15	28	6.1	5.6	4.7
Hannagan Meadows	9090	1/15	33	8.2	7.3	5.6**
Hawley Lake	8300	1/15	23	5.8	2.4	3.6**
Heber	7600	1/12	18	4.8	0.5	1.8
Maverick Fork	9050	1/15	26	6.6	5.9	5.3
McNary	7200	1/15	11	3.3	0.7	1.1
Milk Ranch	7000	1/15	5	1.3	0.0	0.8
Mt. Ord (A)	11000	---	---	---	18.0	11.0**
Nutriosos *	8500	1/15	7	1.8	1.7	1.5
Promontory Butte	7930	---	---	---	---	---
Smith Cienega (A)	9850	---	---	---	17.6	8.4**
Sunrise Summit	10600	1/11	43	10.0	13.0	---
Wilson Lake	9000	1/15	33	6.8	7.6	5.2**
Workman Creek	6900	1/17	20	7.4	1.2	3.0
<u>BILL WILLIAMS RIVER</u>						
Camp Wood *	5700	1/16	2	0.8	0.0	0.4
Copper Basin Divide	6720	1/15	6	2.2	0.0	1.2**
Iron Springs	6200	1/15	2	0.5	0.0	0.9
† 1953-67 15-year period. (*) Adjacent drainage. (**) 1953-67 Adjusted average. (A) Aerial observation: Water content estimated.						
- 7 -						

SNOW ABOUT JANUARY 15, 1973

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Elevation				Last Year	Average †
<u>VERDE RIVER</u>						
Baker Butte	7300	1/15	23	7.4	2.3	2.8**
Baker Butte #2	7700	1/15	38	11.5	4.6	---
Camp Wood	5700	1/16	2	0.8	0.0	0.4
Chalender	7100	1/15	17	4.4	0.9	1.5
Copper Basin Divide	6720	1/15	6	2.2	0.0	1.2**
Fort Valley	7350	1/15	12	3.0	0.0	0.9
Gaddes Canyon	7600	1/15	21	5.9	0.9	2.1**
Happy Jack	7630	1/15	24	6.9	0.0	1.4
Iron Springs *	6200	1/15	2	0.5	0.0	0.9
Mingus Mountain	7100	1/15	4	1.0	0.0	0.6
Mormon Lake *	7350	1/15	23	7.1	0.0	1.6
Mormon Mountain	7500	1/15	27	8.0	0.8	2.2
Newman Park	6750	1/16	12	4.8	0.0	1.2**
Snow Bowl #1	10260	1/15	42	10.3	7.0	4.8**
Snow Bowl #2	11000	1/15	64	15.3	13.7	6.4**
White Horse Lake Jct.	7150	1/17	17	3.6	0.2	---
White Spar	6000	1/15	1	0.2	0.0	0.9**
<u>LOWER COLORADO RIVER</u>						
Bill Williams Int.	8550	1/17	42	10.5	2.8	---
Bill Williams Summit	8950	1/17	45	11.9	5.2	---
Bright Angel	8400	1/15	36	10.0	---	---
Chalender *	7100	1/15	17	4.4	0.9	1.5
Fort Valley	7350	1/15	12	3.0	0.0	0.9
Grand Canyon	7500	1/15	18	5.1	0.0	1.1
Williams Ski Run	7720	1/17	37	9.2	2.2	---
<u>LITTLE COLORADO RIVER</u>						
Baldy	9125	1/15	25	5.7	4.9	4.2
Canyon Creek	7500	1/12	18	5.0	1.0	1.7**
Canyon Point	7600	1/12	21	5.8	0.3	1.9**
Cheese Springs	8600	1/12	25	5.1	4.6	---
Forest Dale	6430	1/15	8	2.2	0.0	0.7
Ft. Apache	9160	1/15	28	6.1	5.6	4.7
Fort Valley	7350	1/15	12	3.0	0.0	0.9
Happy Jack *	7630	1/15	24	6.9	0.0	1.4
Heber	7600	1/12	18	4.8	0.5	1.8
Inner Basin #1	10100	1/15	60	18.9	---	---
Inner Basin #2	9750	1/15	41	11.6	---	---
McNary	7200	1/15	11	3.3	0.7	1.1
Mormon Lake	7350	1/15	23	7.1	0.0	1.6
Mormon Mountain	7500	1/15	27	8.0	0.8	2.2
Nutriosco	8500	1/15	7	1.8	1.7	1.5
Snow Bowl #1	10260	1/15	42	10.3	7.0	4.8**
Snow Bowl #2	11000	1/15	64	15.3	13.7	6.4**
Wilson Lake	9000	1/15	33	6.8	7.6	5.2**

† 1953-67 15-year period. (*) Adjacent drainage. (**) 1953-67 Adjusted average. (A) Aerial observation: Water content estimated.

PRECIPITATION AT SELECTED ARIZONA STATIONS 1/

STATION	Precipitation (Inches)			
	December - 1972		Current Water Year (Oct. 1972-December 1972)	
	Departure from		Departure from	
	Total	Normal	Total	Normal
Alpine	1.46	+ .19	12.12	+ 8.32
Ash Fork	.16	- 1.02	9.37	+ 6.77
Clifton	.95	- .07	5.55	+ 3.09
Douglas Smelter	.23	- .26	5.70	+ 4.34
Flagstaff WSO*	4.13	+ 2.48	16.33	+ 12.16
McNary	2.73	+ .36	13.94	+ 8.30
Payson Ranger Station	2.76	+ .86	16.08	+ 11.33
Phoenix WSFO**	1.56	+ .71	6.97	+ 5.17
Prescott (City)	3.01	+ 1.24	12.72	+ 8.65
Springerville	.09	- .40	3.44	+ 1.71
Tucson WSO*	.61	- .31	6.42	+ 4.24
Winslow WSO*	.73	+ .21	6.92	+ 5.38
Yuma WSO*	.06	- .26	2.74	+ 1.92

1/ Data and Analysis furnished by Paul C. Kangieser,
NOAA Climatologist for Arizona, National Weather Service, Phoenix

WSO* Weather Service Office

WSFO* Weather Service Forecast Office

PRECIPITATION (Inches)

ABOUT JANUARY 15, 1973

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION			FROM APPROX. NOV. 1 TO DATE		
		Date of Reading	Month's Precipitation	Average †	This Year	Average †	Percent of Average
<u>GILA RIVER</u>							
Silver Creek Divide	9000	1/14	---	1.19*	7.94	7.84*	101
Hannagan Meadows **	9030	1/15	1.70	1.34*	7.99	6.57*	121
Frisco Divide **	8000	1/15	0.36	----	3.51	----	---
<u>SALT RIVER</u>							
Canyon Point	7600	1/12	1.18	1.99*	11.93	8.41*	142
Hannagan Meadows *	9030	1/15	1.70	1.34*	7.99	6.57*	121
Little Wildcat (Heber Snow Course)	7600	1/12	1.05	1.77*	9.98	7.30*	137
Maverick Fork	9050	1/15	1.36	1.29*	6.86	6.39*	107
Workman Creek **	6970	1/17	0.80	2.15	11.26	8.90	126
Wilson Lake	9100	1/15	1.40	1.55*	7.32	6.05*	121
<u>VERDE RIVER</u>							
Baker Butte	7300	1/15	1.10	2.15*	10.94	9.31*	117
Copper Basin Divide	6720	1/15	0.68	1.05*	7.76	5.75*	135
Fort Valley **	7350	1/15	1.12	.97	5.78	4.62	125
Happy Jack **	7480	1/15	0.38	1.30*	7.48	5.42*	138
Mingus Mountain	7660	1/15	0.75	1.00	7.75	4.72	164
Mormon Mountain	7500	1/15	2.60	1.50*	12.48	8.51*	147
White Horse Lake Jct.**	7150	1/17	3.74	----	9.42	----	---
<u>LITTLE COLORADO</u>							
Inner Basin #1	9830	1/12	2.15	1.42*	12.12	8.34*	145
Inner Basin #2	10050	1/12	2.60	- *	14.90	--- *	---
Sheep Crossing (Baldy Snow Course)	9125	1/15	1.38	1.46*	7.08	5.96*	119
Little Wildcat (Heber Snow Course)	7600	1/12	1.05	1.77*	9.98	7.30*	137
† 1953-67 Average * Adjusted Average ** Data Supplied by U.S. Forest Service							
- 10 -							

The Following Organizations Cooperate in the Arizona Snow Survey Work

FEDERAL

- Department of Agriculture
 - Soil Conservation Service
 - Forest Service
 - Apache Forest
 - Coconino Forest
 - Coronado Forest
 - Gila Forest
 - Kaibab Forest
 - Prescott Forest
 - Rocky Mountain Forest and Range Experiment Station
 - Tonto Forest
- Department of Commerce
 - NOAA, National Weather Service
- Department of Interior
 - Bureau of Reclamation
 - Region 111
 - Geological Survey
 - Arizona District
 - New Mexico District
 - Bureau of Indian Affairs
 - Fort Apache Reservation
 - San Carlos Irrigation Project
 - National Park Service
 - Grand Canyon National Park
- Gila Water Commissioner
 - Safford, Arizona

STATE

- Arizona Game and Fish Department
- Arizona State Parks Board
- University of Arizona
 - Arizona Agricultural Experiment Station
 - Water Resource Research Center
 - Department of Watershed Management

MUNICIPAL

- City of Flagstaff

IRRIGATION PROJECTS

- Salt River Valley Water User's Association
 - Phoenix, Arizona
- San Carlos Irrigation and Drainage District
 - Coolidge, Arizona
- Maricopa County Municipal Water Conservation District

PRIVATE

- Southwest Forest Industries, Inc.
 - McNary, Arizona
- Fort Apache Indian Reservation
 - White Mountain Recreation Enterprises

Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ROOM 6029 FEDERAL BUILDING
PHOENIX, ARIZONA 85025

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF
AGRICULTURE
AGR-101



FIRST CLASS MAIL

FEDERAL - STATE - PRIVATE
COOPERATIVE SNOW SURVEYS

Furnishes the basic data
necessary for forecasting
water supply for irrigation,
domestic and municipal water
supply, hydro-electric power
generation, navigation,
mining and industry

*"The Conservation of Water begins
with the Snow Survey"*